

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for producing a high brightness luminescent material which ~~is composed of~~includes a matrix substance which ~~that~~ contains aluminate and a luminescent center, which is a rare earth metal ion and/or transition metal ion, comprising:

a step for making an acidic solution of a solution of a water-based solvent containing aluminum alcoholate, which is raw material for aluminate and a metal compound of a rare earth metal and/or transition metal, which is raw material for said luminescent center;

a step for conducting a preliminary calcination of said acidic solution by heating ~~to~~between 900 degrees C – 1100 degrees C, inclusive, under oxidizing conditions; and

a step for conducting a main calcination in which calcination product obtained from said preliminary calcination is pulverized, and under reducing conditions, main calcination is conducted by heating to a temperature higher than the heating temperature of said preliminary calcination.

Claim 2 (currently amended): A method for producing a high brightness luminescent material ~~as described in~~according to Claim 1, wherein:

pH of said acidic solution is between 1 and 7, inclusive.

Claim 3 (currently amended): A method for producing a high brightness luminescent material ~~as described in~~according to Claim 1-~~or~~2, wherein:

calcination temperature of said main calcination is 1400 degrees C to 1600 degrees C, inclusive.

Claim 4 (currently amended): A method for producing a high brightness luminescent material ~~as described in one of Claims 1-3~~according to Claim 1, wherein:
said metal compound is a nitrate.

Claim 5 (currently amended): A method for producing a high brightness luminescent material ~~as described in one of Claims 1-4~~according to Claim 1, wherein:

said luminescent center contains at least one type of metal selected from the group consisting of Eu, Pm, Pr, Yb, Ce, Nd, Tb, Gd, and Er.

Claim 6 (currently amended): A method for producing a high brightness luminescent material ~~as described in one of Claims 1-5~~according to Claim 1, wherein:

said high brightness luminescent material is a BAM type luminescent material represented by BaMgAl₁₀O₁₇: Eu.

Claim 7 (currently amended): A method for producing a high brightness luminescent material ~~as described in one of Claims 1-6~~according to Claim 1, wherein:

a flux agent or a thickener is added to said water-based solvent solution.

Claim 8 (currently amended): A method for producing a high brightness luminescent material ~~as described in~~ according to Claim 7, wherein:

NH_4BF_4 is added as said flux agent.

Claim 9 (currently amended): A high brightness luminescent material obtained by a method for producing a high brightness luminescent material ~~as described in one of Claims 1-8~~ according to Claim 1.

Claim 10 (currently amended): A high brightness luminescent material ~~as described in~~ according to Claim 7, wherein:

said high brightness luminescent material is excited by vacuum ultraviolet radiation.